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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,616

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Dirk Van Aken

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EXAMINER

SETO, JEFFREY K

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,616	<b>Applicant(s)</b> AKEN ET AL.	
	<b>Examiner</b> Jeffrey Seto	<b>Art Unit</b> 2458	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-8 are pending.

#### ***Response to Amendment***

2. In response to the Amendment filed 4-29-2009, the Objection to claims 1 & 3 is withdrawn.

#### ***Response to Arguments***

3. Applicant's arguments filed 4-29-2009 have been fully considered but they are not persuasive. In regards to Applicant's argument that Carpenter does not teach storing an association of the private IPv4 address and the Interface ID value for opposite translation of inbound packets. Carpenter teaches creating an association of the private IPv4 address and determining the Interface ID value (See page 5, sect. 2, par. 4; wherein V4ADDR is an association of the private IPv4 address, and Interface ID is the Interface ID value). Carpenter further teaches that the association and value are stored for opposite translation (See page 8, sect. 5.1, line 10; wherein creating DNS records for the addresses, is storing for opposite translation).
4. Regarding Applicant's argument that Carpenter fails to disclose storing the private IPv4 addresses included in the 6to4 source address of a host of the IPv6 network, for outbound packets. Carpenter discloses a 6to4 source address of a host of a IPv6 network, that includes an IPv4 address (See page 5, sect. 2, par.'s 3 & 4; wherein FP, TLA & V4ADDR are the 6to4 source address, and V4ADDR is the IPv4

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address). Carpenter further discloses storing the addresses for outbound packets (See page 8, sect. 5.1, line 10; wherein creating DNS records for the addresses is storing).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by B.

Carpenter, et al., Connection of IPv6 Domains via IPv4 Clouds (Network Working Group) (referred to herein as “Carpenter”).

2. Regarding claim 1, Carpenter teaches a method for supporting a 6to4 tunneling protocol across a network address translation mechanism comprising the steps of :

- receiving from a first network an outbound IPv6 packet encapsulated into an IPv4 packet, the IPv4 packet comprising a IPv4 header with a private IPv4 source address, the outbound IPv6 packet comprising a IPv6 header with a 6to4 source address, the IPv6 header comprising an Interface ID value (See page. 4, paragraph 1.1, lines 3-6; wherein the first network is an IPv6 network; page 5, par. 2; wherein the SLA ID is the 6to4 source address, the Interface ID is the Interface ID value and the SLA ID and Interface ID together make up the IPv6 header); - translating the private IPv4 source address in the IPv4 header into a public IPv4 source address (See p. 4, par. 1.1, line 13, and p. 5, par. 2; wherein the V4ADDR is the private address and the 6to4 address is

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the public address), - transmitting the translated packet over an IPv4 network (See p. 6, par. 3, lines 1-2); further comprising the step of: - storing an association of the private IPv4 source address and the Interface ID value of the 6to4 source address for opposite address translation of inbound packets (See p. 8, par. 5.1, lines 10-19; wherein creating records for these addresses is storing; and par. 5.3).

3. Regarding claim 2, Carpenter teaches receiving an inbound packet over the IPv4 network (See p. 9, lines 1-2); - determining whether the inbound packet encapsulates an IPv6 packet (See p. 9, lines 2-4); - in the affirmative, retrieving the Interface ID of the encapsulated IPv6 packet's destination address, and using the Interface ID to retrieve the corresponding stored private IPv4 address (See p. 13, par. 5.3, lines 5-8), and updating the destination address in the IPv4 header accordingly (See p. 13, par. 5.3, lines 9-19); - forwarding the modified, encapsulated IPv6 packet on the first network (See p. 14, lines 1-3).

4. Regarding claim 3, Carpenter teaches changing the private IPv4 address of the 6to4 source address in the IPv6 header of an outbound packet to the public IPv4 address (See p. 8, par. 5.1, lines 10-15); and changing the public IPv4 address of the 6to4 destination address of an inbound packet to a corresponding private IPv4 address (See p. 8, par. 5.1, lines 16-21).

5. Regarding claim 4, Carpenter teaches modifying fields at least of the IPv4 header, such as checksums, whose values depend on the 6to4 source address (See p. 7, lines 1-10).

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6. Regarding claim 5, Carpenter teaches the step of storing the association of the Interface ID and a source address of the encapsulated IPv6 packets of the first network and the step of modifying the destination address of inbound packets or the source address of outbound packets as a function of the Interface ID is carried out by an application level gateway assisting the network address translation mechanism (See p. 9, par. 5.2, line 7 to p. 10, line 3; wherein the 6to4 router is the gateway).

7. Regarding claim 6, Carpenter teaches changing the IPv4 part of the 6to4 address are carried out by an application level gateway assisting the network address translation mechanism (See p. 10, lines 2-3; wherein the 6to4 router is the gateway).

8. Regarding claim 7, Carpenter teaches a device for supporting a 6to4 tunneling protocol across a network address translation mechanism, comprising: a network address translation mechanism for changing the private source address of an outbound IPv4 packet encapsulating an IPv6 packet into a public source address (See p. 4, par. 1.1, lines 3-6 & 13, and p. 5, par. 2; wherein the V4ADDR is the private address and the 6to4 address is the public address); further comprising an application for storing the private IPv4 addresses included in the 6to4 source address of a host of the IPv6 network, for outbound packets; and for updating the 6to4 destination address of an inbound packet with a stored private IPv4 address having same Interface ID as the 6to4 destination address (See p. 6, par. 3, lines 1-2, and p. 8, par. 5.1, lines 10-19).

9. Regarding claim 8, Carpenter teaches the application is further adapted to carry out additional processing of an outbound packet, wherein the additional processing consists in replacing the private IPv4 address part of an 6to4 source address of an

outbound packet with the device's public IPv4 address (See p. 8, par. 5.1, lines 10-21).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Seto whose telephone number is (571)270-7198. The examiner can normally be reached on Monday thru Thursday and alt. Fridays, 9:30 AM-7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph E. Avellino can be reached on (571) 272-3905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JKS

8/3/2009

/Joseph E. Avellino/

Supervisory Patent Examiner, Art Unit 2458